staining is observed under UV light, followed by Southern analysis with nested .sup.32P-labeled probes.

Please delete the paragraph on page 37, line 22 and replace it with the following paragraph:

SEQ ID NO:17 – ~~protein~~ nucleotide sequence. Frame 1 is disclosed as SEQ ID NOS:18-23; Frame 2 is disclosed as SEQ ID NOS:24-28; Frame 3 is disclosed as SEQ ID NOS:29-36.

Please delete the paragraph on page 38, lines 32-37 and replace it with the following paragraph:

Capital letters of DNA are exon A (1-146) and exon 2 (288-339), while small letters (147-287) are exon B. The figure shows 3 frames of the translation from given a vAFP DNA sequence. Underlined amino acid sequence is the frame of authentic AFP. Frame 1 is disclosed as SEQ ID NOS:18-23; Frame 2 is disclosed as SEQ ID NOS:24-28; Frame 3 is disclosed as SEQ ID NOS:29-36.

page 33 line 1

Please delete the heading for Table 1 and replace it with the following header:

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Table 1. Primer sequences used in this study (SEQ ID NOS:41-65 disclosed respectively in order of appearance)

Please delete the paragraph on page 7, line 7 and replace it with the following paragraph:

FIG. 4 depicts the genomic sequence of variant AFP exon A (SEQ ID NO:40).

Please delete the paragraph on page 19, line 26 to page 20, page 11 and replace it with the following paragraph:

After surgical removal, tissue samples are immediately fixed in 10% formaldehyde (pH 7.0) and nondecalcified, paraffin-embedded specimens are used for FISH. Pretreatment of sections before hybridization is carried out by covering the sections with 300 .mu.l of prehybridization buffer (50% deionized formamide, 0.3 M NaCl, 10 mM Tris-HCl, pH 7.5; 10 mM NaHPO.sub.4, pH 6.8; 5 mM EDTA; 0.1.times. Denhardt's, 10 mM dithiothreitol; 0.25 mg/ml yeast tRNA, 12.5% dextran sulfate; 0.5 mg/ml salmon sperm DNA and is incubated in a humid chamber for 2 hr at 42.degree. C. For hybridization, digoxigenin-labeled double-stranded cDNA probe for the vAFP having the sequence 5-ACCATGAAGTGGGTGGAATC-3' (SEQ ID NO:41) (ex-1S, Table 1) and 5'-ATTTAAACTCCCAAAGCAGCAC-3' (SEQ ID NO:49) (ex-14A, Table 1) are used. The probe is labeled with digoxigenin according to the protocol of the Dig-Labeling Kit (Boehringer Mannheim, Mannheim, Germany). Prior to hybridization, the labeled probe is mixed with prehybridization buffer to a concentration of 1 .mu.g/mL, heated for 10 min. at 95.degree. C. and quickly chilled on ice. Excess prehybridization buffer is removed from the slides, and approximately 30 .mu.l of hybridization solution is applied to the sections. Sections are covered with a coverslip, sealed with rubber cement and hybridized in a humid chamber at 42.degree. C. for 18 h. The post-hybridization washing steps are performed as described by Weithege, T., et al. Pathol. Res. Pract., 187:912-915, 1991.

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Please delete the paragraph on page 21, line ~~26 to page 20, page 11~~ 21 to line 27 and replace it with the following paragraph:

Oligonucleotide primers for vAFP are made using a MilliGen 8700 DNA synthesizer. Sequences are 5'-CTTCCATATTGGATTCTTACCCAATG-3' (SEQ ID NO:66) (ex-2S, Table 1) and 5'-TAAACCCTGGTGTTGGCCAG-3' (SEQ ID NO:47) (ex-12S, Table 1). All buffers, enzymes, and nucleotides used are obtained from Applied Biosystems. PCR products are analyzed electrophoretically using a 1% agarose gel (80 V, 3 hr) and the ethidium bromide